



eSight Energy Ltd

Part of the eSight Energy Group

Nigel Ebdon
EMEA Sales Manager

Getting the most from energy analysis and dashboards

eSightenergy

Leaders in energy management solutions



Process Industry



Health Care



Public Sector



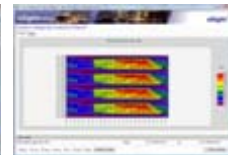
Retail

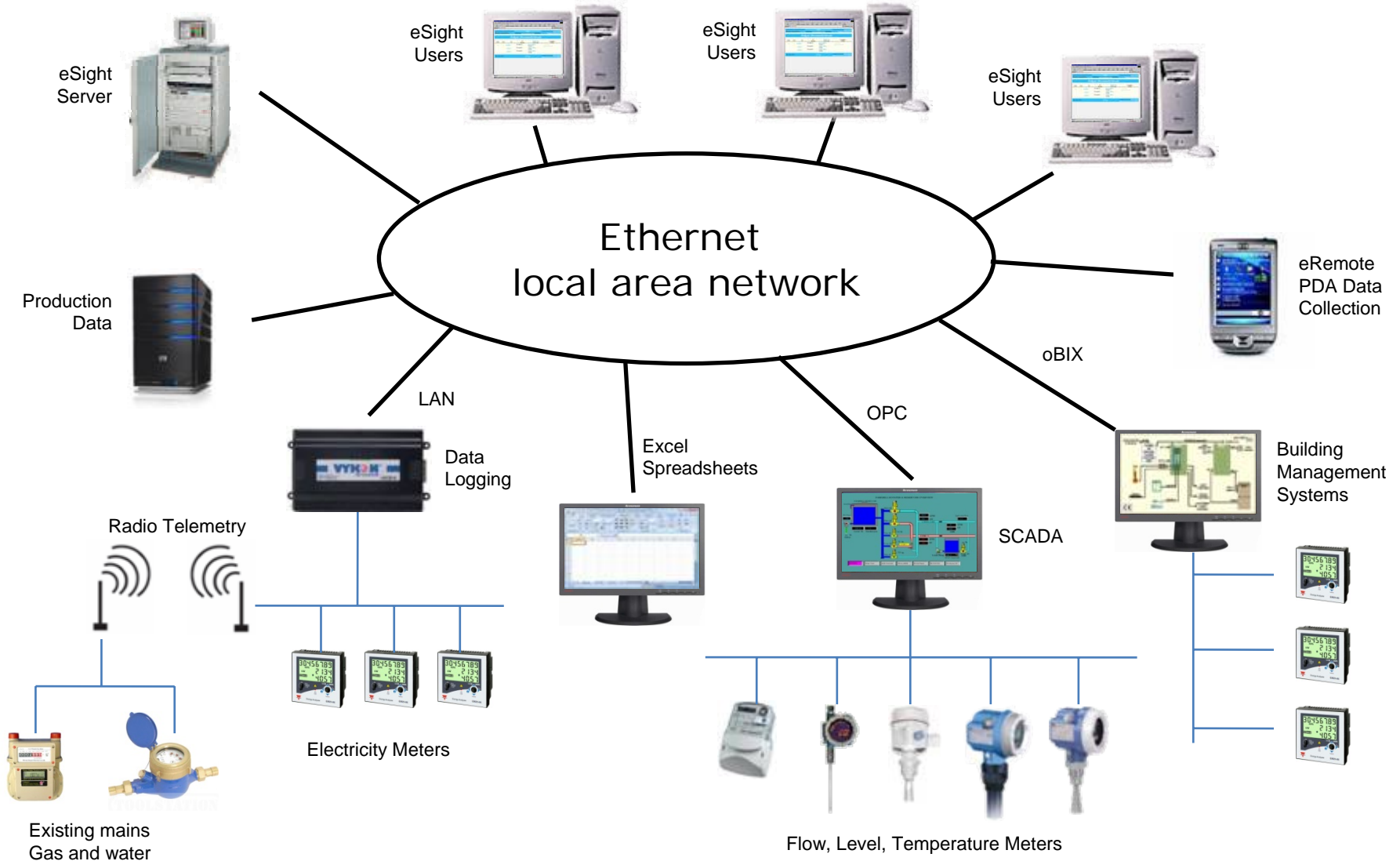


Built Environment



Education





Energy Analysis Techniques in Action

Base Load Analysis of water consumption at a **college** in Wales

Specific Energy Analysis at major UK **brewery** in Leeds

Energy Temperature Curve Analysis in **commercial buildings** in Norway

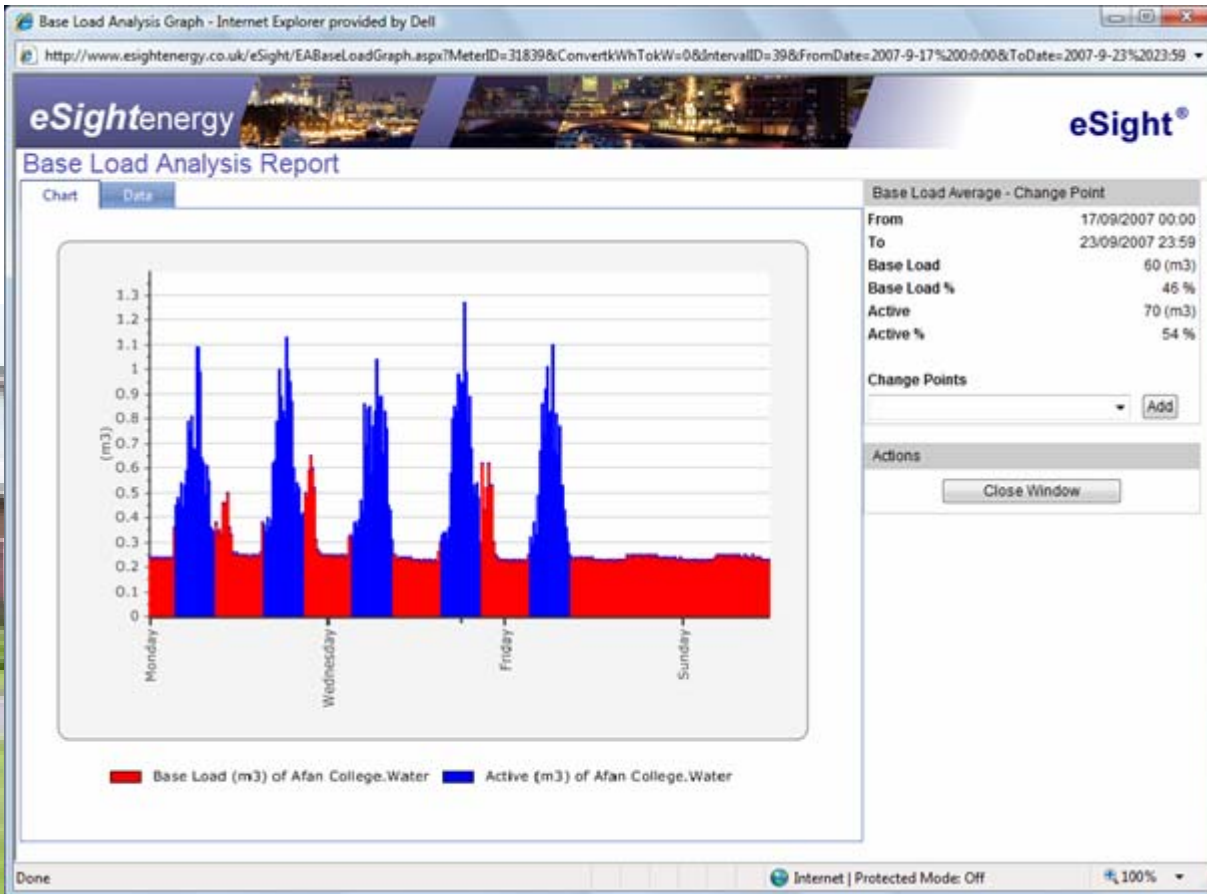
Surface Map Analysis on **electricity** consumption

Energy Analysis on electricity supply to **hospital** wards in Dublin

Water Analysis on **hotel** in South West UK

Regression, Deviation and CUSUM Analysis on boiler consumption in a UK **hotel**

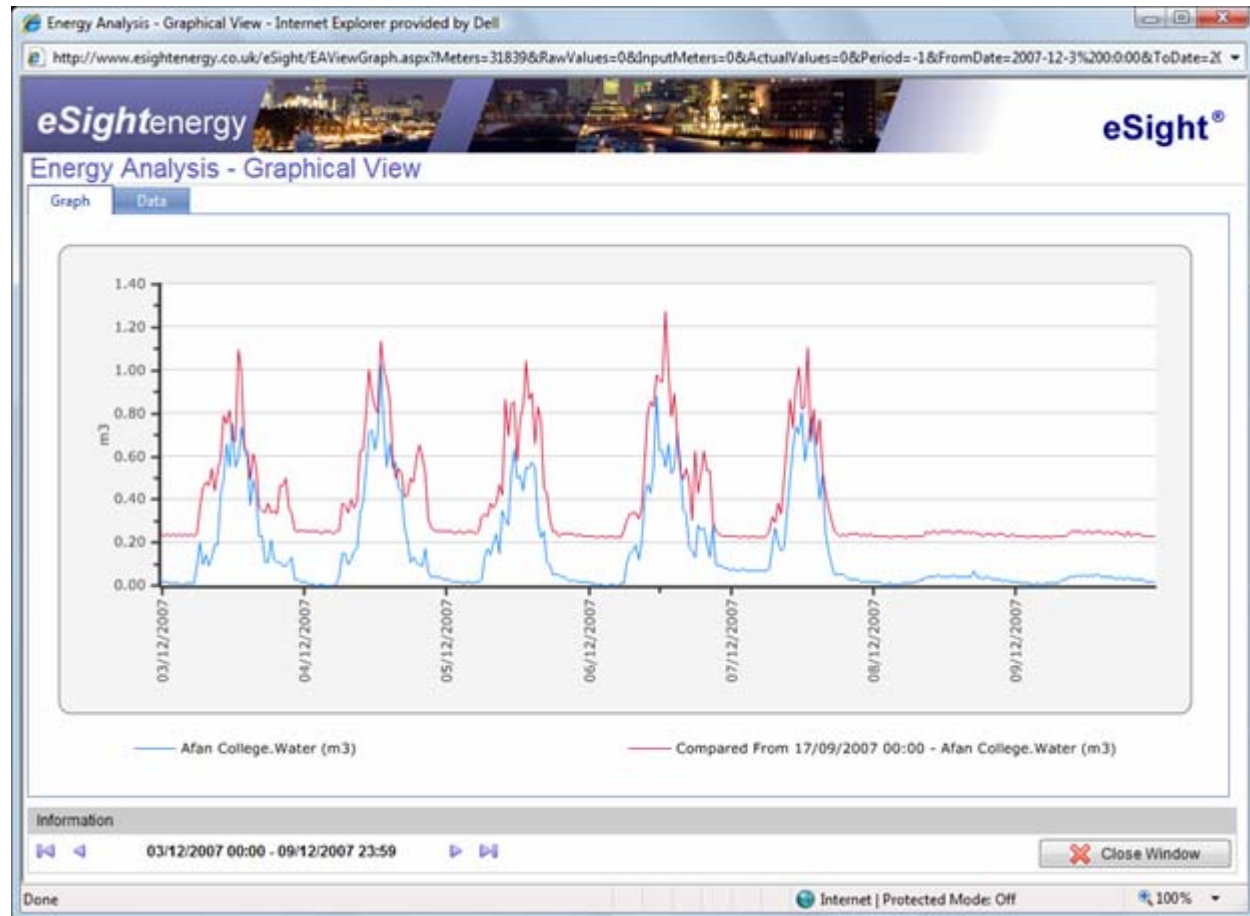
Base Load Analysis



Water consumption was analysed against building occupancy.

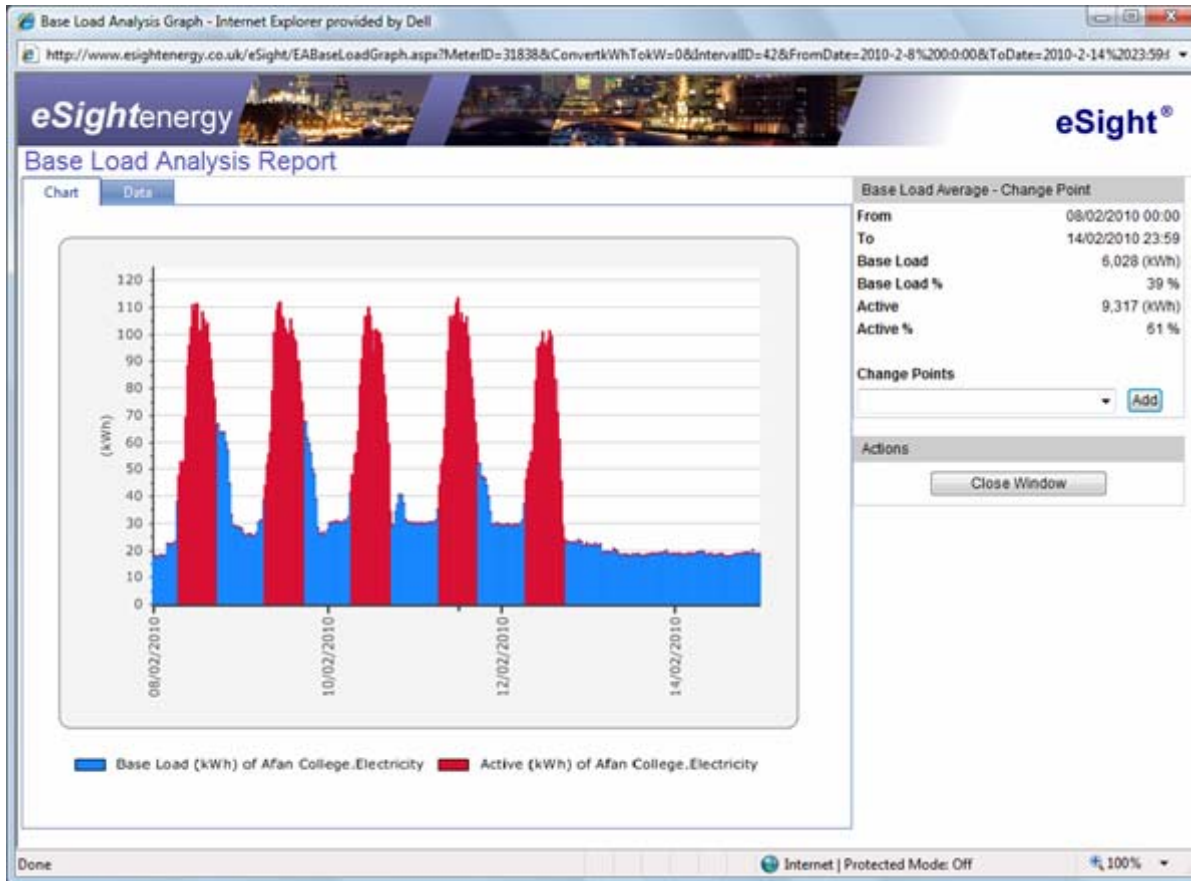
It was clear that the base load for water consumption was too high.

The likely course was a water leak.



The water leak was detected using ground microphones. The leak was fixed resulting in a saving of £15,000 per year.

Base Load Analysis



Another example of base load analysis at the same college is the analysis of electricity use.

39% of the electricity consumption is out-of hours due to IT and air conditioning

This represents a cost of £562 per week. That's £30,000 per year!

Specific Energy
Consumption



Carlsberg use 28 million kWh of energy in the brewing process.

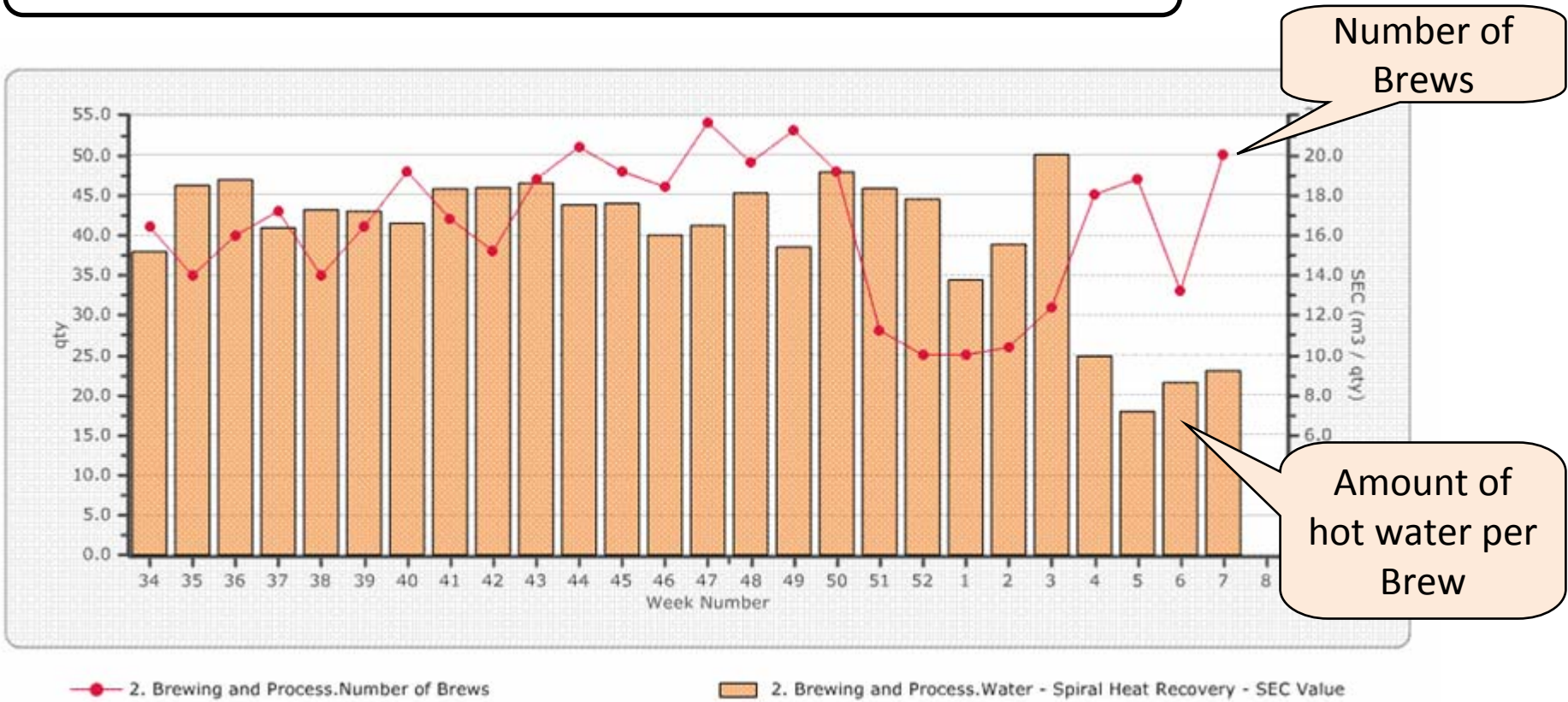
They recover 4 million kWh of energy from vapour heat exchanger.






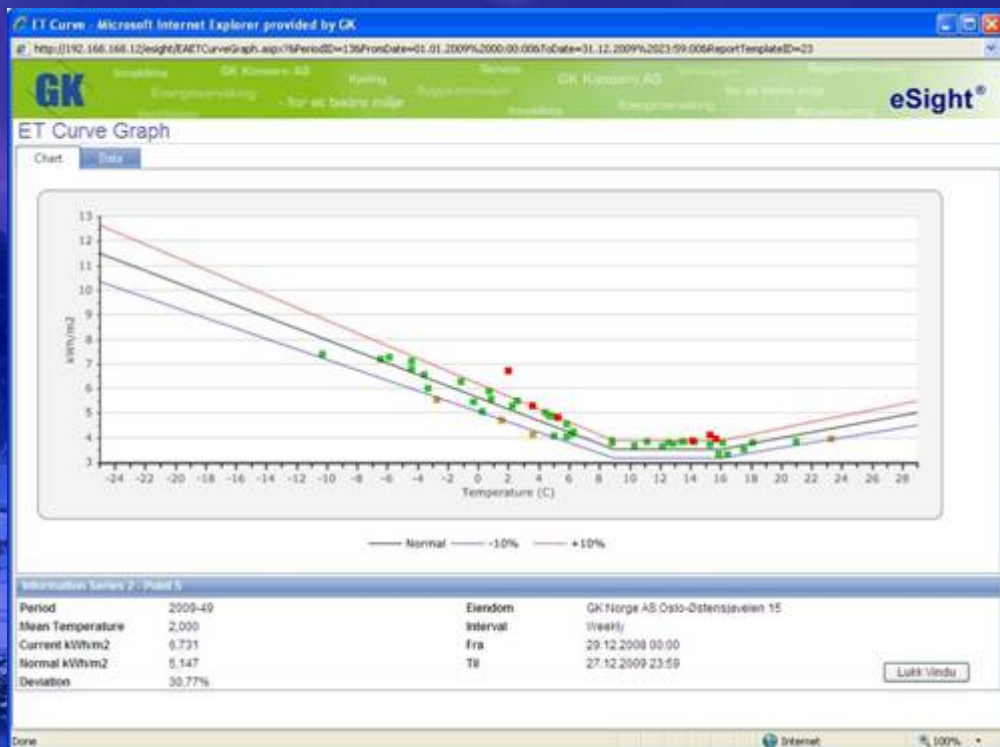
Recovering heat from the vapour produced from a copper boiler provides hot water at 95°C for use elsewhere in the brewing process.

SEC Analysis monitors the amount of hot water recovered per brew.





With improved heat recovery and other energy reduction techniques, Carlsberg have been able to reduce their kWh per hectolitre (kWh/hl) by 14%



ET Matrix

Eiendommen

Uke (29.12.2008 - 27.12.2009)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
GK Norge AS, Oslo-Døsteneveien 15	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	Warning	Warning	Warning	OK	OK	OK	OK	OK	OK	OK
GK Norge AS, Bergen-Wallemøllen 18	Error	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning	Warning

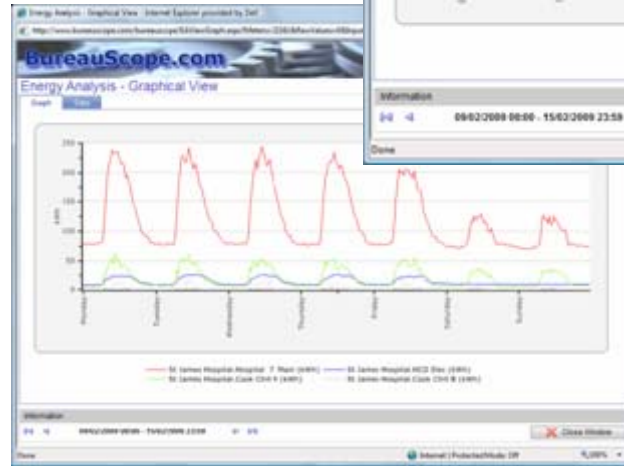
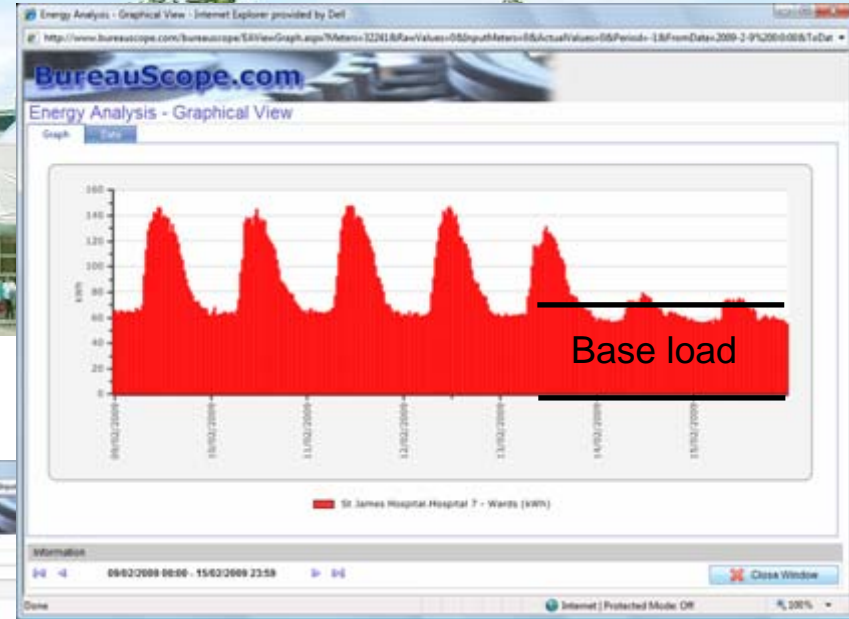
Electricity reduction project for St James Hospital in Dublin

Identify

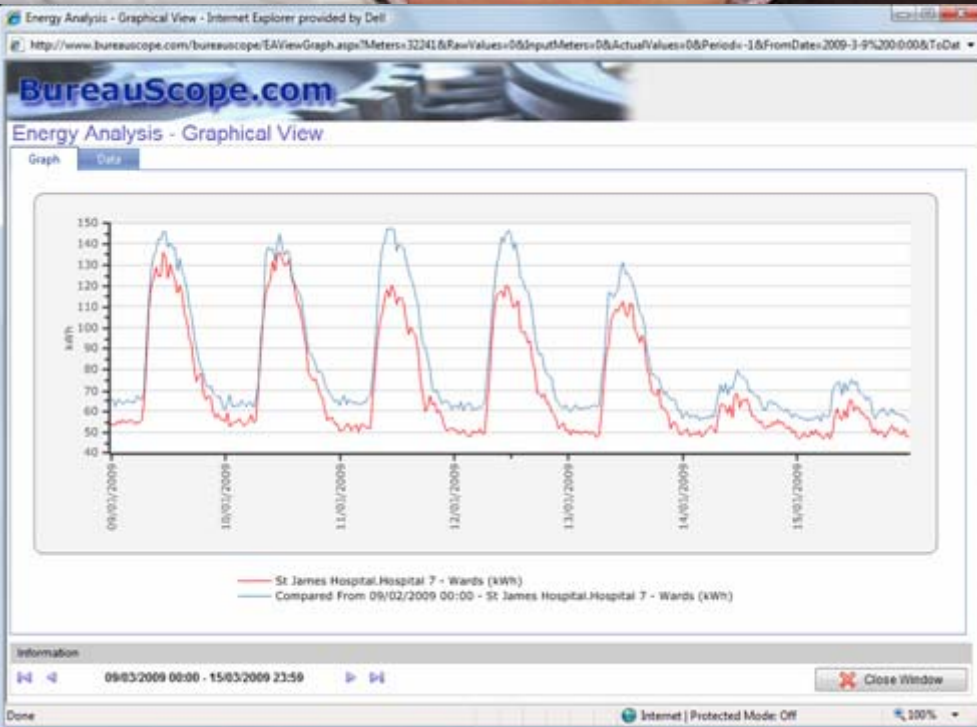
Initial analysis of electricity use on the wards highlighted a higher than expected base load.

Project

Ten energy champions were identified and a project initiated to check and reset timers back to correct values.



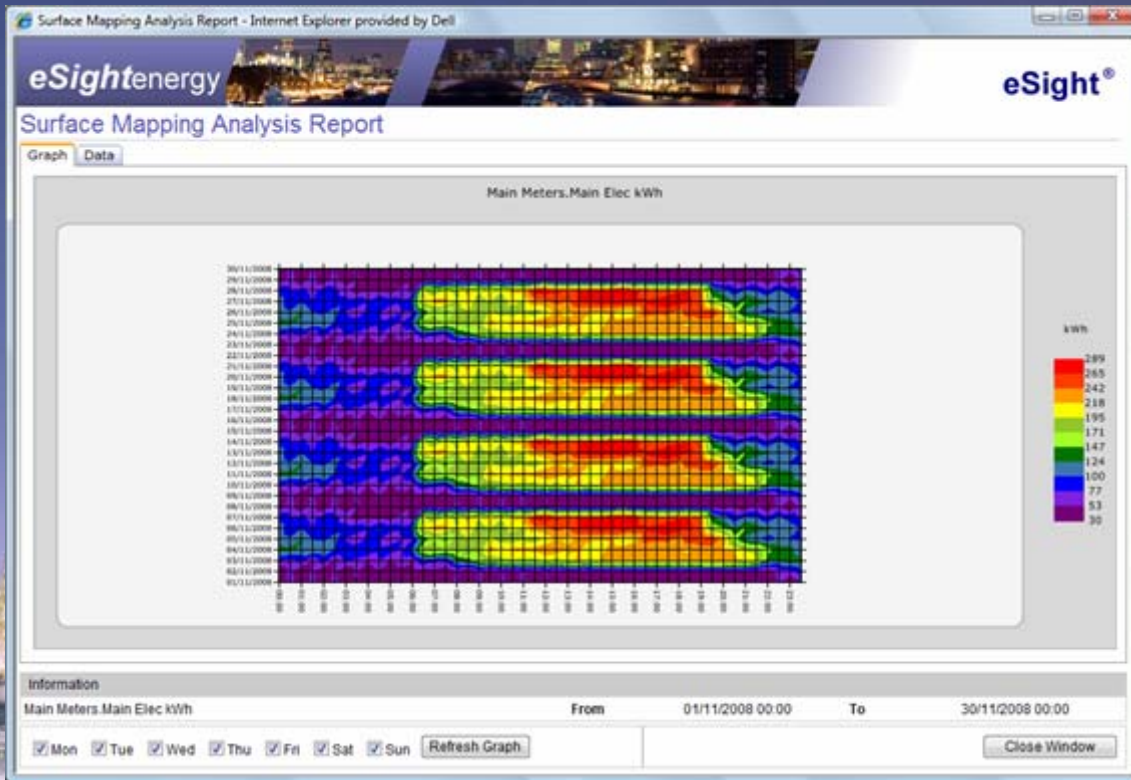
ST. JAMES'S
HOSPITAL



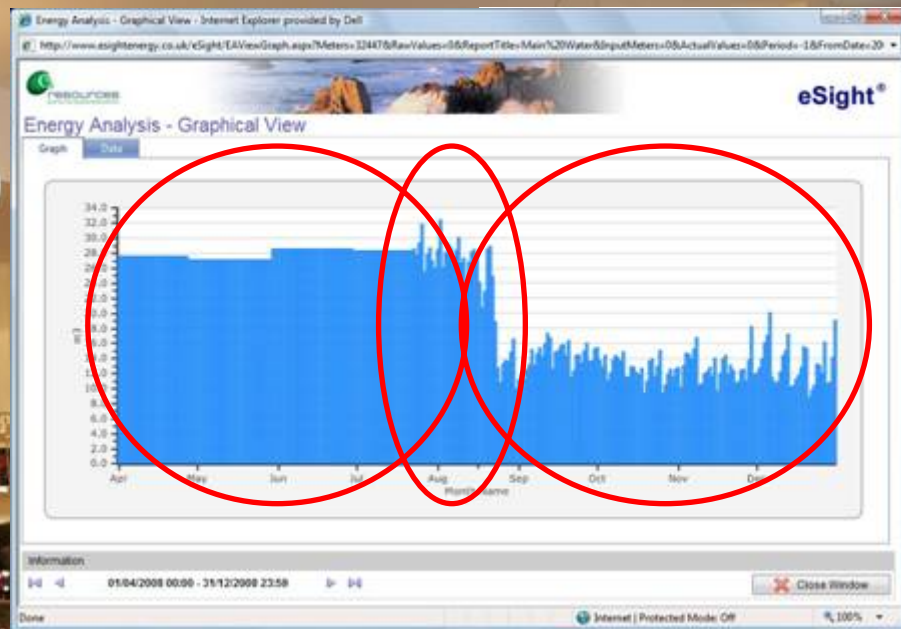
Reviewing and resetting timer schedules reduced the base load and achieved a saving of €20,800 per year



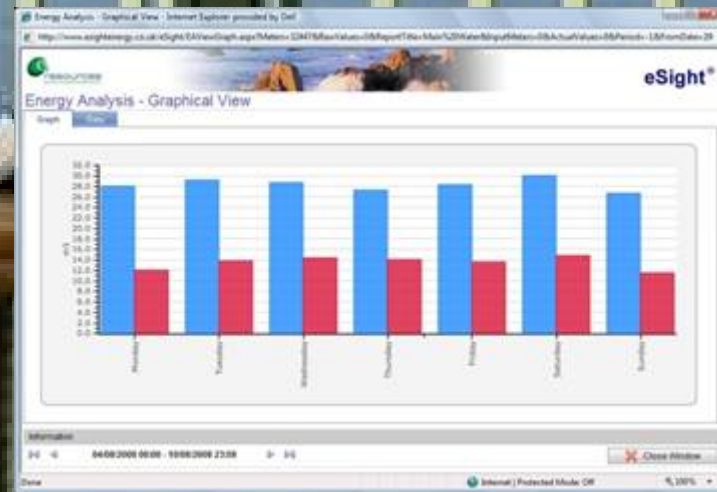
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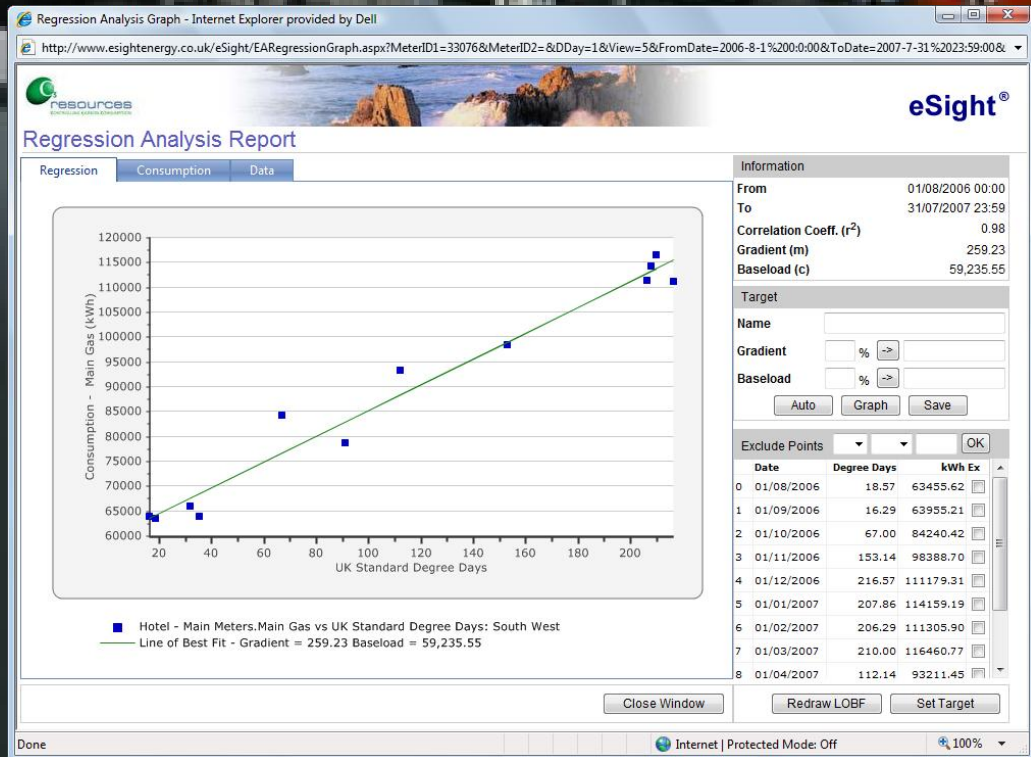
Analysis of hotel water consumption



Correcting this water leak has saved the hotel a total of £25,000 per year

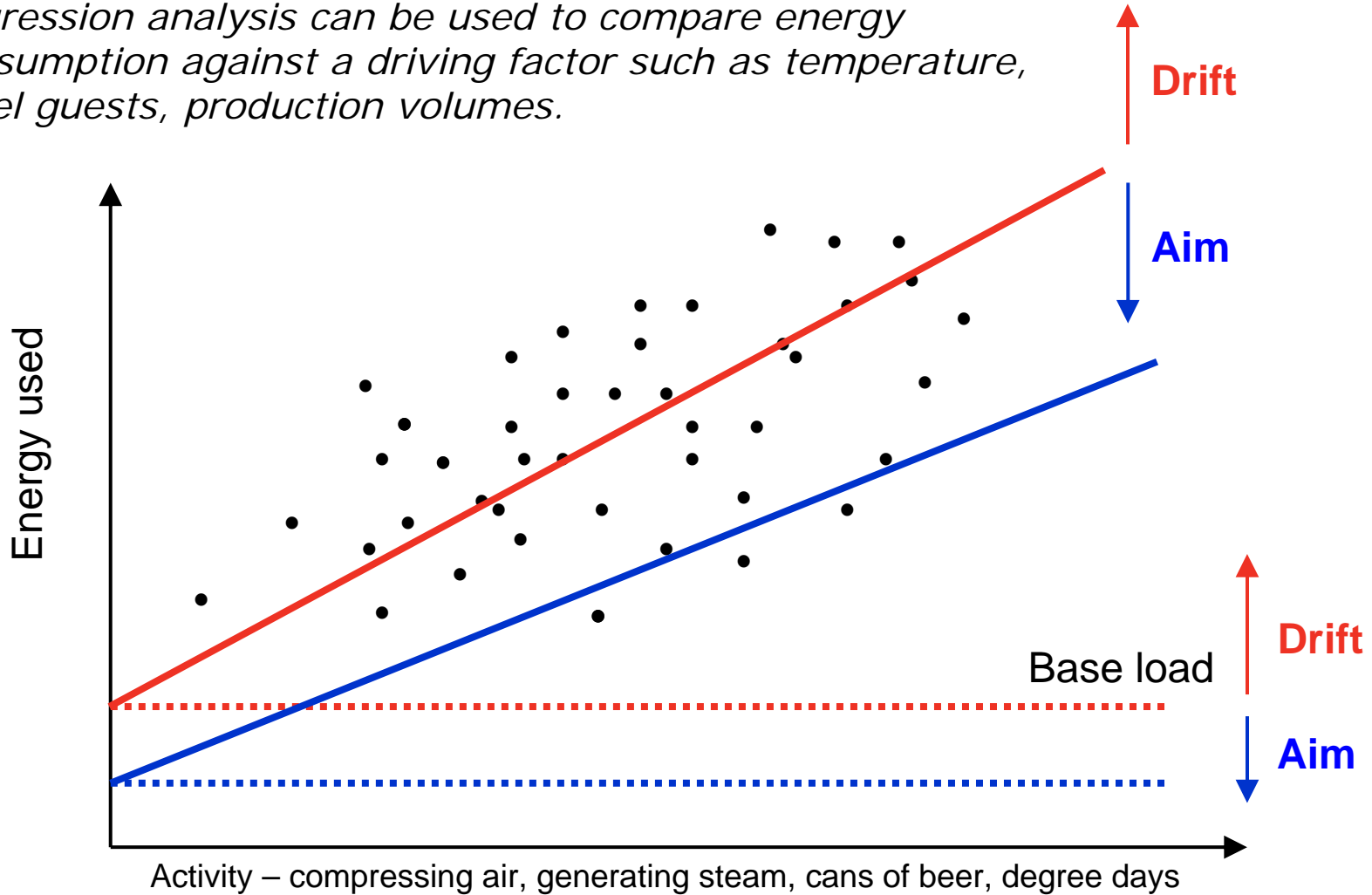


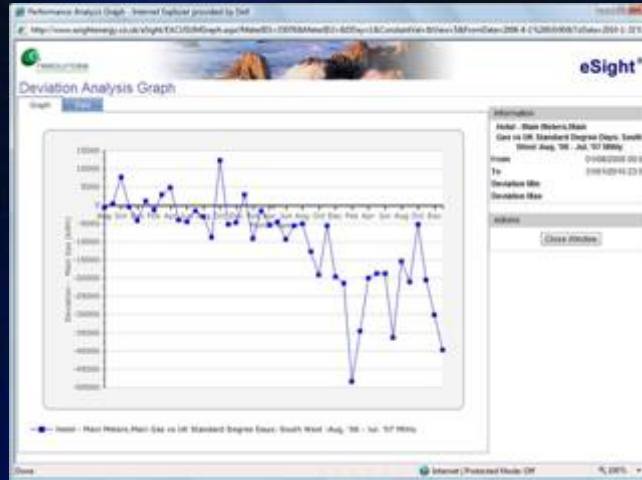
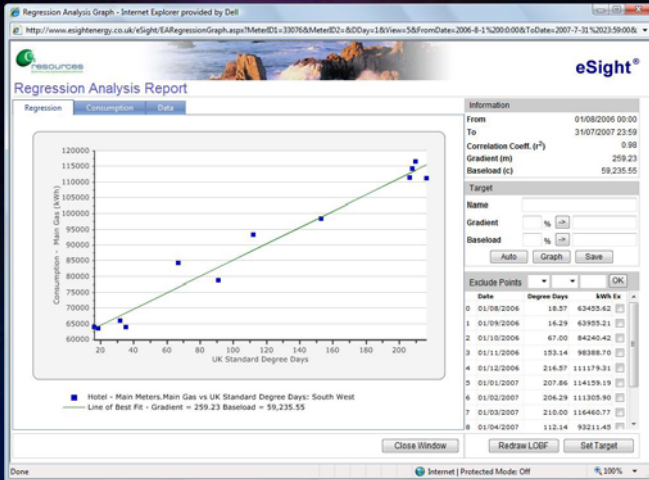
Identification and replacement of inefficient boiler in hotel



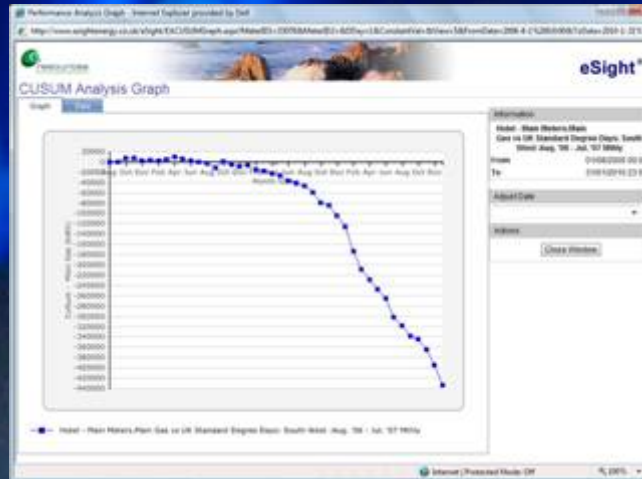
Regression Analysis

Regression analysis can be used to compare energy consumption against a driving factor such as temperature, hotel guests, production volumes.





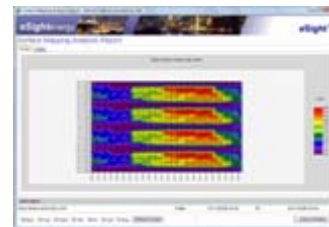
Replacement of the boiler has saved the hotel £14,000 since summer 2008



We have seen some key energy analysis techniques in action and the savings that can be achieved.

Where possible relate the energy or utility analysis to a driving factor or occupancy time.

It is also important to spread information as widely as possible within an organisation to sustain the year on year reductions.



Provide reports to management and key building managers to show progress against targets



Allow key individuals to login and have access to just their building



Provide access to facilities managers and energy managers



Place energy dashboards in common areas such as the reception or canteen



Use Dashboards and Gadgets

Use desktop gadgets to force energy information onto everyone's desktop

Make use of user specific dashboards to ensure they see key information immediately they login

Ensure desktop gadgets and dashboards are configurable by you





Thank you

Nigel Ebdon

www.eSightenergy.com

If you want to know more about our products and services, we have an exhibition stand over near the coffee area